



**IN THE  
UNITED STATES  
PATENT AND TRADEMARK  
OFFICE**

<i>Application Number</i>	09/897,465
<i>Filing Date</i>	3 July 2001
<i>First Named Inventor</i>	Baldomero M. OLIVERA
<i>Group Art Unit</i>	1653
<i>Examiner Name</i>	G.E. Bugaisky
<i>Attorney Docket Number</i>	2314-236

*Title of the Invention:* **USE OF ALPHA-CONOTOXIN PEPTIDES**

**AMENDMENT**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**RECEIVED**  
SEP 17 2003  
TECH CENTER 1600/2900

Dear Sir:

**INTRODUCTORY COMMENTS**

In response to the Office Action mailed 12 March 2003, please amend the above-identified application as follows.

***Amendments to the Specification*** are reflected in the amended paragraphs which begins on page 2 of this paper. Material added has been indicated by underlining (underlining) and material deleted has been indicated by strikethrough (~~strikethrough~~).

***Amendments to the Claims*** are reflected in the listing of claims which begins on page 3 of this paper. Material added has been indicated by underlining (underlining) and material deleted has been indicated by strikethrough (~~strikethrough~~).

***Remarks*** begin on page 6 of this paper.

09/15/2003 CNGUYEN 00000105 09897465

01 FC:2202  
02 FC:2253

36.00 OP  
465.00 OP

Serial No.: 09/897,465  
Amendment dated 12 September 2003  
Reply to Office Action mailed 12 March 2003

*AMENDMENTS TO THE SPECIFICATION*

Please replace the first full paragraph on page 7 with the following amended paragraph:

The  $\alpha$ -conotoxin peptides can be designed to be more specific for one of these subtypes of nAChRs. For example, MII has a higher specificity for the  $\alpha 3\beta 2$ -containing subtype, whereas FAT-MII has a higher specificity for the  ~~$\alpha 3\beta 2$ -containing~~  $\alpha 3\beta 4$ -containing subtype. Similarly, PnIA has a higher specificity for the  $\alpha 3\beta 2$ -containing subtype, whereas PnIA A10L has a higher specificity for the  $\alpha 7$ -containing subtype. The peptides set forth in Table 1 have the following specificities (with respect to higher specificity, generally by several orders of magnitude):  $\alpha 3\beta 2$ -containing subtype: MII, Tyr-MII, PnIA and PnIA N11S;  $\alpha 3\beta 4$ -containing subtype: AuIA, AuIB, AuIC, FAT-MII and Tyr-FAT-MII; and,  $\alpha 7$ -containing subtype: PnIB, ImI and PnIA A10L. The specificity of each peptide is readily determined by assaying for subtype specificity in accordance with techniques well known in the art.